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THE TYPES OF SCOLIIDAE (HYMENOPTERA), DESCRIBED BY EDUARD EVERSMAHN, WITH SOME TAXONOMIC NOTES AND CHECKLIST OF RUSSIAN SCOLIIDAE

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Summary. A review of type specimens of nine nominal taxa, described by E. Eversmann is given. The lectotypes are designated for *Scolia grisea* Eversmann, 1849, *S. sareptana* Eversmann, 1849, and *S. schrenckii* Eversmann, 1846. The neotype is designated for *Vespa galbula* Pallas, 1771. New synonymy is proposed for *Colpa galbula* (Pallas, 1771), **comb. n.** = *Scolia sexmaculata* Fabricius, 1781, **syn. n.**, = *S. interrupta* Fabricius, 1781, **syn. n.**, = *S. sareptana* Eversmann, 1849, **syn. n.**; *Scolia quadricincta* Scopoli, 1786, **stat. resurr.** = *S. flaviceps* Eversmann, 1846, **syn. n.** According to Articles 23.9.1.2, 23.9.2 of Code (ICZN, 1999) *Scolia fallax* Eversmann, 1849 is *nomen protectum* and has precedence over the older name *Vespa tricolor* Pallas, 1771, *nomen oblitum*. Checklist of Russian Scoliidae (5 genera, 20 species) is given.

Key words: Hymenoptera, Scoliidae, taxonomy, types, E. Eversmann, P. Pallas, new synonymy, fauna, Russia.

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Резюме. Дан обзор типовых экземпляров 9 номинальных таксонов, описанных Э. Эверсманном. Обозначены лектотипы для *Scolia grisea* Eversmann, 1849, *S. sareptana* Eversmann, 1849 и *S. schrenckii* Eversmann, 1846. Обозначен неотип для *Vespa galbula* Pallas, 1771. Предложена новая синонимия для *Colpa galbula* (Pallas, 1771), **comb. n.** = *Scolia sexmaculata* Fabricius, 1781, **syn. n.**, = *S. interrupta* Fabricius, 1781, **syn. n.**, = *S. sareptana* Eversmann, 1849, **syn. n.**; *Scolia quadricincta* Scopoli, 1786, **stat. resurr.** = *S. flaviceps* Eversmann, 1846, **syn. n.** В соответствии со статьями 23.9.1.2, 23.9.2 кодекса (ICZN, 1999) *Scolia fallax* Eversmann, 1849 является *nomen protectum* и имеет преимущество перед старшим названием *Vespa tricolor* Pallas, 1771, *nomen oblitum*. Приведен список сколиид России (5 родов, 20 видов).

INTRODUCTION

E.A. Eversmann was one of the first who studied the scoliid wasps in the Russian Empire. In his papers (Eversmann, 1846, 1949) he described nine new species (three of them currently are valid) from Russia and Kazakhstan and gave the first catalogue of *Scolia* (13 species). The Eversmann's collection of insects, including most of his types, was bought by the Russian Entomological Society and currently is deposited at the Zoological Institute, St. Petersburg. Here we gave in alphabet order the type material of described scoliid taxa. Because the Eversmann's scoliid species are related with two scoliid species described by P.S. Pallas (1771), the latter are discussed also.

MATERIAL AND METHODS

The type material of Scoliidae, described by E. Eversmann and neotype of *Vespa galbula* Pallas, 1771 are deposited in the Zoological Institute, St. Petersburg, Russia. Comparative and additional material of Scoliidae from the collection of this institute, M.V. Mokrousov personal collection, Nizhni Novgorod and collection of Federal Scientific Center of the East Asia Terrestrial Biodiversity, Vladivostok were studied also. Photographs of the specimens and labels were taken by a digital camera Canon EOS 50D with objective Canon Macro Lens EF 100 mm. Composite images stacked with the software Helicon Focus®. The final illustrations were post-processed for sharpness, contrast and brightness using Adobe® Photoshop® software. The generic and subgeneric classification follows T. Osten (2005). The regionalization of the Russia and Europe see Loktionov & Lelej (2017). The order of distribution follows forthcoming Catalogue of Hymenoptera of Russia.

LIST OF THE TYPES

Scolia amabilis Eversmann, 1849

Fig. 1

Scolia amabilis Eversmann, 1849: 433, ♂, "*Hab[itat] in provinc[iae] Astrachanensi*".

TYPE LOCALITY. Russia: North Caucasus, Stavropol Terr.

HOLOTYPE. ♂, "Cauc. // *amabi-* / *lis mihi* // Holotype ♂ / *Scolia amabilis* / Eversmann, 1849 // *Scolia* ♂ / *fuciformis* Scop. / Mokrousov det., 2016 // [bottom label] *amabilis, mihi*".

CURRENT STATUS. *Scolia fuciformis* (Scopoli, 1786) = *S. amabilis* Eversmann, 1849, **syn. confirmed**. Junior subjective synonym of *Scolia insubrica* Rossi, 1790 (= *Sphex fuciformis* Scopoli, 1786) according to Burmeister, 1854: 44.

REMARK. The holotype with the label "Cauc[asus]" has been collected by E. Eversmann and student Ludwig in 1830 in the places between Stavropol and mountain Magshuk (!) (near current Pyatigorsk) (Geptner, 1940) and Astrakhan Governorate in the description possibly erroneous.

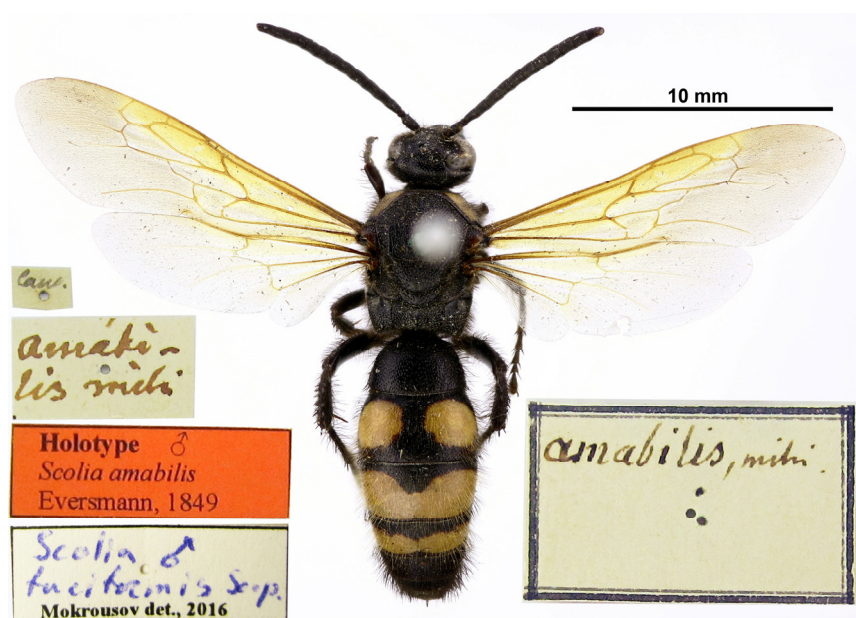


Fig. 1. *Scolia amabilis* Eversmann, 1849, holotype, ♂. Habitus and labels.

Scolia concolor Eversmann, 1849

Fig. 2

Scolia concolor Eversmann, 1849: 432, ♂, "*Hab[itat] in campis Kirgisorum orientalibus*" [Eastern Kazakhstan]

TYPE LOCALITY. Eastern Kazakhstan: Eastern Kazakhstan Prov.

HOLOTYPE, ♂, "Songaria [Eastern Kazakhstan] // *concolor* / Evm / an *cyani-* / *pennis* F.? // Holotype ♂ / *Scolia concolor* / Eversmann, 1849 // [bottom label] *cyanipennis* / F.? / *concolor* Evm".

CURRENT STATUS. Valid species *Scolia (Scolia) concolor* Eversmann, 1849.



Fig. 2. *Scolia concolor* Eversmann, 1849, holotype, ♂. Habitus and labels.

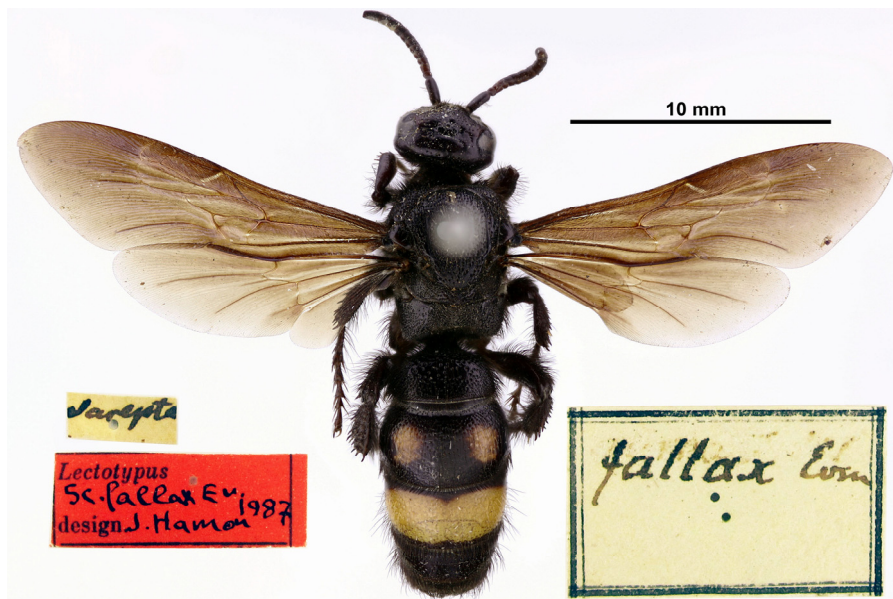


Fig. 3. *Scolia fallax* Eversmann, 1849, lectotype, ♀. Habitus and labels.

***Scolia fallax* Eversmann, 1849**

Fig. 3

Scolia fallax Eversmann, 1849: 434, ♀, "*Hab[itat] ad Volgam inferiorem*" [Lower part of Volga River]; Burmeister, 1854; Hamon, 1993; Osten, 1994; Madl, 1997; Osten, 1999; Osten & Özbek, 1999; Osten, 2000; 2002; Osten *et al.*, 2003; Anlaş & Çevik, 2004; Osten & Arens, 2004; Tezcan *et al.*, 2004; Tüzün, 2004; Milko & Kazenas, 2005; Osten, 2005a; 2005b; Fallahzadeh & Saghaei, 2010; Sakenin *et al.*, 2010; Özbek & Anlaş, 2011; Amolin, 2012; Elçin, 2012; Fateryga & Shorenko, 2012; Samin & Bağrıaçık, 2012; Samin *et al.*, 2014; Elçin & Bağrıaçık, 2015; Fateryga & Shorenko, 2015; Bağrıaçık, 2016.

TYPE LOCALITY. Russia: South of European part, Volgograd Prov.

LECTOTYPE (designated by Hamon, 1993: 90). ♀, "Sarepta [Russia, Volgograd]" // Lectotypus / *Sc. fallax* Ev. / design. J. Hamon 1987 // [bottom label] *fallax* Evsm". **Paralectotypes.** 2♀, "Sarepta".

CURRENT STATUS. Valid species *Scolia (Scolia) fallax* Eversmann, 1849. See discussion below under *Vespa tricolor* Pallas, 1771.

***Scolia flaviceps* Eversmann, 1846**

Fig. 4

Scolia flaviceps Eversmann, 1846: 441, tab. 5, fig. 3, ♀, "*Habitat in Caucaso*".

TYPE LOCALITY. Russia: North Caucasus, Stavropol Terr.

HOLOTYPE. ♀, "Cauc[asus] [Russia, Stavropol Terr., near Pyatigorsk]" // *flaviceps* / mihi // Holotype ♀ / *Scolia flaviceps* / Eversmann, 1846 // *Scolia* ♀ / *quadricincta* Scop. / Mokrousov det., 2017 // [bottom label] *flaviceps* / mihi".

CURRENT STATUS. Junior subjective synonym of *Scolia (Scolia) quadricincta* Scopoli, 1786, **stat. resurr.** = *S. flaviceps* Eversmann, 1846, **syn. n.**

REMARK. More data about the label of holotype see *Scolia amabilis* above.

***Scolia grisea* Eversmann, 1849**

Fig. 5

Scolia grisea Eversmann, 1849: 431, ♂, "*Hab[itat] in campis australibus inter Wolgam et Ural fluvios*" [Volga-Ural interfluvies; Russia, Western Kazakhstan].

TYPE LOCALITY. Russia: South of European part, Volgograd Prov.

LECTOTYPE (designated here). ♂, "Sarepta [Russia, Volgograd]" // Lectotype *Scolia grisea* / Eversmann, 1849 / Design. Mokrousov et / Lelej, 2016 // *Colpa* ♂ / *quinquecincta* F. / Mokrousov det., 2016 // [bottom label] *grisea* Evm.". **Paralectotypes.** 1♂, "Calmucc" [Kalmyk steppe, probably Astrakhan Prov.]; 2♂, "Inderm" [Western Kazakhstan, Atyrau Prov., Inder Lake]; 2♂, "Spassk" [Russia, Orenburg Prov.].

CURRENT STATUS. *Colpa (Heterelis) quinquecincta* (Fabricius, 1793) = *Scolia grisea* Eversmann, 1849, **syn. confirmed**. Synonymized with *Scolia quinquecincta* Fabricius, 1793 by Burmeister, 1854: 44.

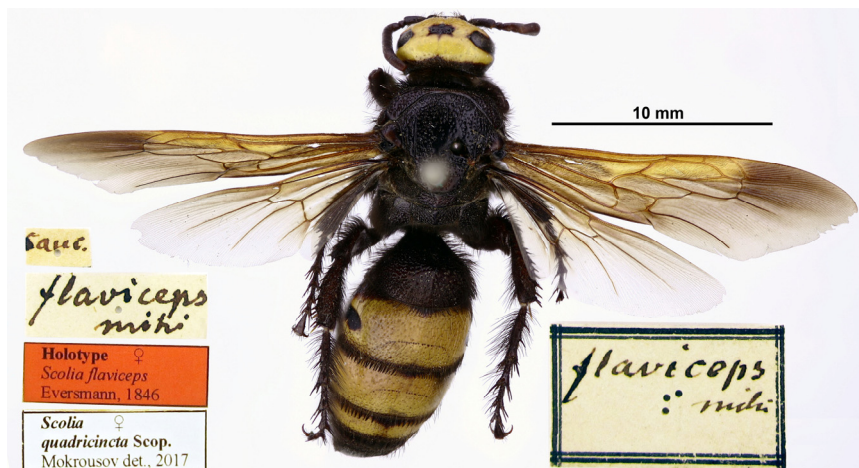


Fig. 4. *Scolia flaviceps* Eversmann, 1846, holotype, ♀. Habitus and labels.

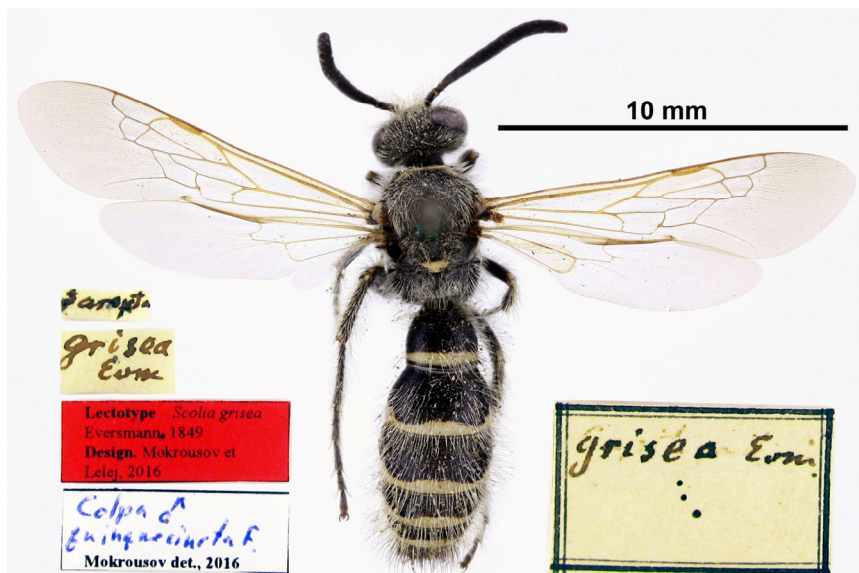


Fig. 5. *Scolia grisea* Eversmann, 1849, lectotype, ♂. Habitus and labels.

***Scolia laeta* Eversmann, 1849**

Fig. 6

Scolia laeta Eversmann, 1849: 433, ♂, "*Cepi in campis australibus inter Wolgam et Ural fluvios*" [Volga-Ural interfluvies; Russia, Western Kazakhstan].

TYPE LOCALITY. Russia: South of European part, Kalmyk Rep.

HOLOTYPE. ♂, "Calmucc" [Kalmyk steppe, probably Astrakhan Reg.] // *laeta* / Evm. // Holotype ♂ / *Scolia laeta* / Eversmann, 1849 // *Scolia* ♂ / *garrula* Er. / Mokrousov det., 2016 // [bottom label] *laeta* Evm".



Fig. 6. *Scolia laeta* Eversmann, 1849, holotype, ♂. Habitus and labels.



Fig. 7. *Scolia sareptana* Eversmann, 1849, lectotype, ♀. Habitus and labels.

CURRENT STATUS. Junior subjective synonym of *Scolia* (*Scolia*) *garrula* Erichson, 1849 = *S. laeta* Eversmann, 1849, **syn. confirmed**. Synonymized with *Scolia garrula* Erichson by F. Morawitz, 1891: 182.

REMARKS. In spite that both species were described in 1849, the dating of Erichson's paper is November (the reprint may be in 1848), while Eversmann's one in December.

***Scolia sareptana* Eversmann, 1849**

Fig. 7

Scolia sareptana Eversmann, 1849: 431, ♀, "*Hab[itat] Sareptae*" [Russia, Volgograd].

TYPE LOCALITY. Russia: South of European part, Volgograd Prov.

LECTOTYPE (designated here). ♀ "Sarepta [Russia, Volgograd] // *sarepta-* / *na* Evm // Syntypus // LECTOTYPUS / *Scolia sareptana* / Ev. ♀ Tkalců det. // Lectotype *Scolia / sareptana* Eversmann, 1849 / Design. Mokrousov et Lelej, / 2016 // [bottom label] *sareptana* / Evm / 6-*maculata* / Fabr.". **Paralectotype**. 1 ♀ "Sarepta" [Russia, Volgograd].

CURRENT STATUS. Junior subjective synonym of *Colpa* (*Colpa*) *galbula* (Pallas, 1771) Synonymized with *Scolia interrupta* (Fabricius, 1804) by Burmeister, 1854: 44. See discussion below under *Vespa galbula* Pallas, 1771.

***Scolia schrenckii* Eversmann, 1846**

Figs 8, 9

Scolia Schrenckii Eversmann, 1846: 441, tab. 4, fig. 2, ♀, ♂, "*Habitat in campis Orenburgensibus orientalibus, in campis subaltaicis et in Songoria*"

TYPE LOCALITY. Eastern Kazakhstan: Eastern Kazakhstan Prov.

LECTOTYPE (designated here), ♀, "Songaria" [Eastern Kazakhstan] // *Scolia / Schrenckii* [handwritten by Eversmann] // Lectotype ♀ *Scolia / schrenckii* Eversmann, 1846 / Design. Mokrousov et / Lelej, 2017 [bottom label lacking].

Paralectotypes. 2 ♀, 7 ♂, "Songaria" [Eastern Kazakhstan]; 1 ♀ "Spask" [Russia, Orenburg Prov]

CURRENT STATUS. Valid species *Scolia* (*Discolia*) *schrenckii* Eversmann, 1846.

REMARKS. Paralectotype, ♀ from "Spask" [Russia, Orenburg Prov.] belongs to *Scolia q. quadricincta* Scopoli, 1787.

***Scolia vetula* Eversmann, 1849**

Fig. 10

Scolia vetula Eversmann, 1849: 432, ♀, "*Cepi Sareptae*" " [Russia, Volgograd].

TYPE LOCALITY. Eastern Kazakhstan: Eastern Kazakhstan Prov.

HOLOTYPE, ♀, "Songar[ia] [Eastern Kazakstan] // *vetula* / Evm. // Holotype ♀ // *Scolia vetula* / Eversmann, 1849 // *Colpa* ♀ / *quinguecincta* F. / Mokrousov det., 2016 // [bottom label] *vetula* Evm".

CURRENT STATUS. Junior subjective synonym of *Colpa* (*Heterelis*) *quinguecincta* (Fabricius, 1793), **syn. confirmed**. Synonymized with *Scolia marginata* Vander Linden, 1827 (= *S. quinguecincta* Fabricius, 1793) by Burmeister, 1854: 44; this synonymy was confirmed by Steinberg, 1962: 91.



Fig. 8. *Scolia schrenckii* Eversmann, 1846, lectotype, ♀. Habitus and labels.



Fig. 9. *Scolia schrenckii* Eversmann, 1846, Paralectotype, ♂. Habitus and labels.

REMARK. The holotype with the label "Songar[ia]" has been collected by Eversmann's own collector Pavel Romanov near the Chinese boundary in 1840–1844 (Geptner, 1940) and Sarepta in the description is possibly erroneous. Moreover holotype and description correspond to a black morph, non-occurring in the Volga Basin.

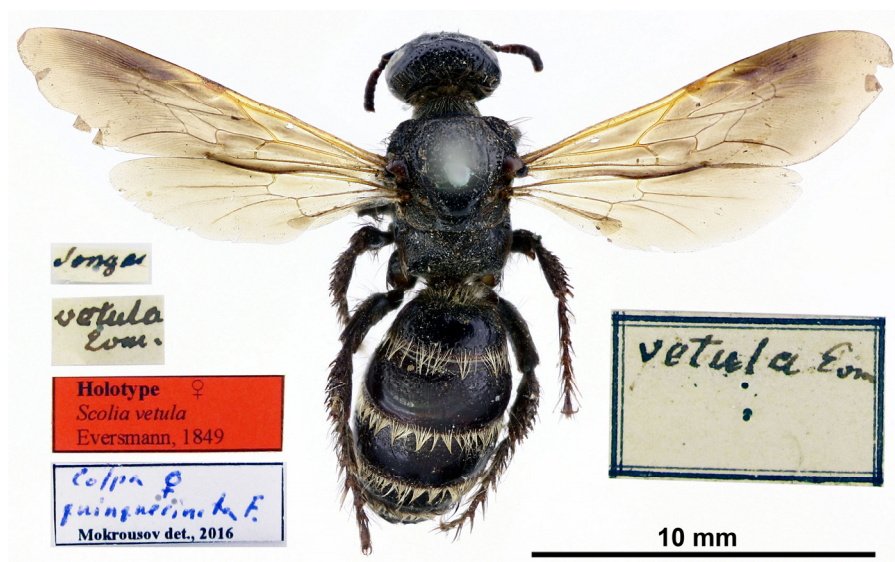


Fig. 10. *Scolia vetula* Eversmann, 1849, Holotype, ♀. Habitus and labels.

Vespa galbula Pallas, 1771

Fig. 11

Vespa galbula f. *maiores* Pallas, 1771: 158, 473.

TYPE LOCALITY. Western Kazakhstan: Uralsk (former Yaitskij Gorodok), Western-Kazakhstan Prov.

NEOTYPE (designated here), ♀, "Окр. Уральска / 7.VII.[1]908 / Д. Бородин и Б. Уваров. // Neotype ♀ / *Vespa galbula* Pallas, 1771 / Design. Mokrousov et / Lelej, 2017" (Fig. 11).

CURRENT STATUS. Valid species *Colpa* (*Colpa*) *galbula* (Pallas, 1771), **comb. n.** (= *Scolia sexmaculata* Fabricius, 1781, **syn. n.**; *S. interrupta* Fabricius, 1781, **syn. n.**; *S. sareptana* Eversmann, 1849, **syn. n.**).

DISCUSSION. *Vespa galbula* Pallas, 1771 was described as species with three form – *maiores* (females), *mediae* (workers?) and *minores* (males?). According to description of Pallas, form "maiores" is *Scolia sexmaculata* Fabricius, 1781; forms "mediae" and "minores" probably *S. hirta* (Schrank, 1781), ♀ and ♂ respectively. The name *V. galbula* Pallas, 1771 has priority over *S. sexmaculata* Fabricius, 1781 and *Apis hirta* Schrank, 1781.

The syntypes of *Vespa galbula* Pallas, 1771 were collected in 1769 between May (April in old style) and September along the route: Samara – Orenburg – Yaitskij Gorodok (now Uralsk) – Inder Lake – Guriev (now Atyrau). Bischoff & Bradley (1929) designated as lectotype of *V. galbula* Pallas, 1771 the specimen "mediae form" from "Tauria" (Crimea) [Museum für Naturkunde der Humboldt Universität zu Berlin, Berlin, Germany]. This designation of the lectotype is invalid because the specimen from Crimea was collected by P.S. Pallas, who lived and investigated the Crimean Peninsula in 1793–1810 (Makaruev, 1877), much later and in other place than syntypes of *V. galbula* Pallas, 1771 (Art. 74.2 of Code) (ICZN, 1999). The specimens of *V. galbula* from Samara, Orenburg Prov. and Western Kazakhstan collected by P.S. Pallas probably lost; they are absent at Museum für Naturkunde der Humboldt Universität zu Berlin, Berlin, Germany; not found at Zoological Institute, St. Petersburg and Zoological Museum of Moscow State University; The locality "Uralsk" (Western Kazakhstan) is the most probable place where the syntypes were collected by P.S. Pallas, moreover this place is located in the middle of possible collection localities and place where P.S. Pallas spent all July in 1769. Because of that we designate here the neotype of *V. galbula* Pallas, 1771 and propose new synonymy. The neotype corresponds to the Pallas description for *V. galbula* forma maiores.

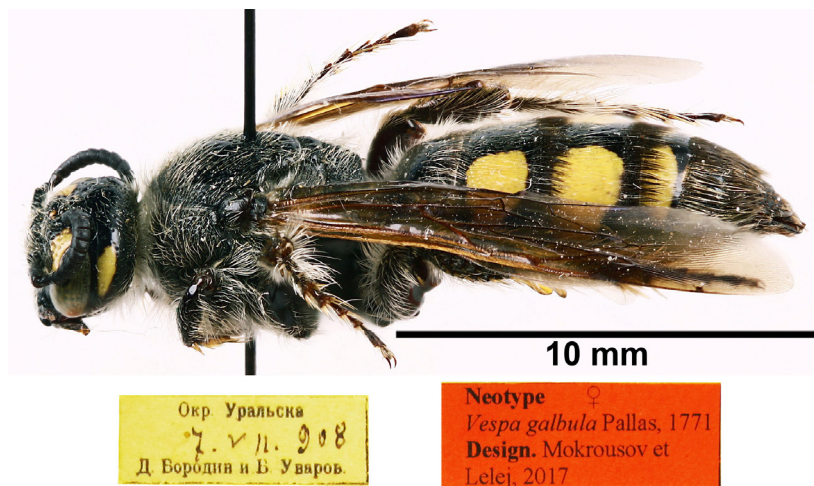


Fig. 11. *Vespa galbula* Pallas, 1771, Neotype, ♀. Habitus and labels.

Vespa tricolor Pallas, 1771

Vespa tricolor Pallas, 1771: 413, 474.

CURRENT STATUS. *Scolia fallax* Eversmann, 1849, **nom. protectum** (= *Vespa tricolor* Pallas, 1771, **nom. oblitum**).

DISCUSSION. Type specimen of *Vespa tricolor* Pallas, 1771 was collected on Aug. 20, 1769 (Aug. 31, 1769, in new style) at Inder Lake (Western Kazakhstan,

Atyray Prov.). Bischoff & Bradley (1929: 302) designated as holotype (lectotype) of *V. tricolor* Pallas, 1771 the specimen from "Tauria" (Crimea) [Museum für Naturkunde der Humboldt Universität zu Berlin, Germany], and synonymized it with *V. galbula* Pallas, 1771. This designation of the holotype (lectotype) is invalid, because the specimen from Crimea was collected by P.S. Pallas, who lived and investigated the Crimean Peninsula in 1793–1810 (Makaruev, 1877), much later than syntypes of *V. tricolor* Pallas, 1771 were collected and described (Art. 74.2 of Code) (ICZN, 1999). See also the discussion of Argaman (1996). According to Bradley (1972) the holotype (lectotype) of *V. tricolor* Pallas, 1771 *sensu* Bischoff & Bradley (1929) conspecific with *Scolia fallax* Eversmann, 1849 not *S. galbula* f. *media* ["mediae" (workers?)] Pallas, 1771.

Vespa tricolor Pallas, 1771, according to original description and collecting date, is a senior synonym for *Scolia fallax* Eversmann, 1849. After description *V. tricolor* Pallas, 1771 was not used as a valid name and according to Art. 23.9.1.1, 23.9.2 of Code (ICZN, 1999) is *nomen oblitum*. On other side the junior synonym *S. fallax* Eversmann, 1849 has been used for a particular taxon, as its presumed valid name, in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years (see above) and according to Art. 23.9.1.2, 23.9.2 of Code (ICZN, 1999) is *nomen protectum* and has precedence over the older name *V. tricolor* Pallas, 1771.

CHECKLIST OF THE RUSSIAN SCOLIIDAE

Tribe Campsomerini

Genus *Colpa* Dufour, 1841

(*Trielis* de Saussure, 1863; *Campsoscolia* Betrem, 1933)

Type species: *Scolia interrupta* Fabricius, 1781 (= *Vespa galbula* Pallas, 1771).

NUMBER OF SPECIES. World – 31, Palaearctic – 12, Russia – 4.

***Colpa (Colpa) galbula* (Pallas, 1771)** [*Vespa*] (*Scolia sexmaculata* Fabricius, 1781; *S. interrupta* Fabricius, 1781; *Sphex insubrica* Scopoli, 1786; *Scolia sareptana* Eversmann, 1849). Russia: European part (Central, East, South, North Caucasus, Crimea), Ural (Orenburg Prov.). – Europe (Western, Southern, Eastern), Algeria, Georgia, Azerbaijan, Cyprus, Turkey, Western Kazakhstan.

***Colpa (Colpa) klugii* (Vander Linden, 1827)**. Russia: European part (Crimea). – Europe (Southern, Eastern), Turkey, Iran.

***Colpa (Crioscolia) tartara* (de Saussure, 1880)** [Elis] (*Scolia mongolica* F. Morawitz, 1889). Russia: European part (Dagestan). – Armenia, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China (Neimenggu, Xinjiang).

***Colpa (Heterelis) quinqueincta* (Fabricius, 1793)** [*Scolia*] (*Scolia rufiventris* Fischer von Waldheim, 1843, nom. praeocc., nec Fabricius, 1804; *S. grisea* Eversmann, 1849; *S. vetula* Eversmann, 1849). Russia: European part (Central, South, North Caucasus, Crimea), Ural (Orenburg Prov.). – Europe (Western, Southern, Eastern), North Africa, Georgia, Azerbaijan, Turkey, Israel, Iraq, Iran, Western Pakistan, Central Asia, Kazakhstan.

Genus *Megacampsomeris* Betrem, 1928

Type species: *Tiphia grossa* Fabricius, 1804.

NUMBER OF SPECIES. World – 40, Palaearctic – 6, Russia – 2.

Megacampsomeris grossa matsumurai (Betrem, 1941) [Campsomeris]. Russia: Far East (Primorskii Terr.). – Japan (Honshu).

Megacampsomeris prismatica (Smith, 1855) [Scolia] (*Elis iris* Magretti, 1892; *Scolia simillima* Tullgren, 1904; *Megacampsomeris uchidai* Betrem, 1941). Russia: Far East (Primorskii Terr.). – China (Heilongjiang, Gansu, Henan, Shandong, Anhui, Jiangsu, Hubei, Hunan, Jiangxi, Zhejiang, Guizhou, Fujian, Guangdong, Taiwan), Korea, Japan (Honshu), South-East Asia, India.

Tribe Scoliini

Genus *Carinoscolia* Betrem, 1927

Type species: *Scolia opalina* Smith, 1857.

NUMBER OF SPECIES. World – 8, Palaearctic – 2, Russia – 1.

Carinoscolia vittifrons (Sichel in de Saussure & Sichel, 1864) [Scolia] (*S. fascinata* Smith, 1873; *Discolia signatifrons* Pérez, 1905; *D. fasciata* Matsumura, 1917). Russia: Far East (Amur Prov., Khabarovsk Terr., Primorskii Terr.). – China (Heilongjiang, Sichuan, Taiwan), Korea, Japan (Honshu, Kyushu, Yakushima, Ryukyu).

Genus *Megascolia* Betrem, 1928

Type species: *Scolia procer* Illiger, 1802.

NUMBER OF SPECIES. World – 15, Palaearctic – 3, Russia – 1.

Megascolia (Regiscolia) maculata (Drury, 1773) [Sphex] (*Scolia flavifrons* Fabricius, 1775; *S. haemorrhoidalis* Fabricius, 1787). Russia: European part (Central, East, South, North Caucasus, Crimea), Ural (Bashkir Rep., Chelyabinsk Prov.). – Europe (Western, Southern, Eastern), North Africa, Abkhazia, Caucasus, Turkey, Cyprus, Syria, Israel, Iran, Turkmenistan, Western Kazakhstan.

Genus *Scolia* Fabricius, 1775

Type species: *Scolia quadripunctata* Fabricius, 1775 (= *Vespa sexmaculata* O.F. Müller, 1766).

NUMBER OF SPECIES. World – more than 200, Palaearctic – 50, Russia – 12.

- Scolia (Discolia) hirta* (Schränk, 1781)** [Apis] (*Discolia alutus* Nagy, 1967, *D. mongolina* Nagy, 1970). Russia: European part (Central, East, South, North Caucasus, Crimea), Ural (Chelyabinsk Prov., Orenburg Prov., Kurgan Prov.), Western Siberia (Tyumen Prov., Altai Rep.), Eastern Siberia (Khakassia, Tuva, Krasnoyarsk Terr., Irkutsk Prov., Buryatia, Zabaikalskiy Terr.). – Europe (Western, Northern, Southern, Eastern), Caucasus, Abkhazia, Cyprus, Turkey, Israel, Iran, Turkmenistan, Uzbekistan, Kazakhstan, Mongolia.
- Scolia (Discolia) histrionica* (Fabricius, 1787)** [Tiphia] (*S. loebischii* Dalla Torre, 1897; *S. palaeoarctica* Gussakovskij, 1932; *S. decorata* auct.). Russia: Far East (Amur Prov., Khabarovsk Terr., Primorskii Terr., Kuril Islands). – Mongolia, China (Heilongjiang, Neimenggu, Hebei, Shanxi, Shandong, Gansu, Anhui, Jiangxi, Fujian, Guangdong), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu, Yakushima), South-East Asia.
- Scolia (Discolia) oculata* (Matsumura, 1911)** [Discolia] (*S. pseudounifasciata* Betrem, 1928). Russia: Far East (Khabarovsk Terr., Primorskii Terr.). – China (Beijing, Henan, Shandong, Zhejiang, Taiwan), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima, Yakushima).
- Scolia (Discolia) schrenckii* Eversmann, 1846.** Russia: Western Siberia (Tyumen Prov., Altai), Eastern Siberia (Irkutsk Prov.). – Kazakhstan, Uzbekistan, Kyrgyzstan, Mongolia, China (Xinjiang).
- Scolia (Discolia) sinensis* de Saussure in de Saussure & Sichel, 1864** (*S. indica* Uchida, 1925). Russia: Far East (Khabarovsk Terr., Primorskii Terr.). – Pakistan, Central Asia, South-East Kazakhstan, China (Heilongjiang, Liaoning, Beijing, Shandong, Anhui, Jiangsu, Shanghai, Zhejiang, Sichuan, Xizang, Taiwan, Hainan), Korea, India (Jammu & Kashmir). Once was collected in Japan (Honshu) (Yasumatsu, 1954).
- Scolia (Scolia) f. fallax* Eversmann, 1849** (*S. moreana* Mueh, 1962; *S. galbula* auct.). Russia: European part (East, South, Crimea). – Europe (Southern, Eastern), Azerbaijan, Kazakhstan.
- Scolia (Scolia) f. syriacola* Betrem, 1935.** Russia: European part (North Caucasus). – Georgia, Azerbaijan, Turkey, Syria, Lebanon, Israel, Iran, Turkmenistan.
- Scolia (Scolia) fuciformis* (Scopoli, 1786)** [Sphex] (*Scolia insubrica* Rossi, 1790, nom. praeocc., nec *Sphex insubrica* Scopoli, 1786; *Scolia amabilis* Eversmann, 1849). Russia: European part (Central, East, South, North Caucasus, Crimea), Eastern Siberia (Irkutsk Prov.). – Europe (Western, Southern, Eastern), Azerbaijan, Cyprus, Turkey, Israel, Iran, Kazakhstan.
- Scolia (Scolia) garrula* Erichson in Ménétriés, 1849** (*S. laeta* Eversmann, 1849; *S. menetriési* de Saussure, 1859). Russia: European part (South). – Central Asia, Kazakhstan.
- Scolia (Scolia) gussakovskii* Steinberg, 1953.** Russia: European part (South). – Europe (Eastern), Turkmenistan, Uzbekistan, Kazakhstan.

- Scolia (Scolia) potanini* F. Morawitz, 1889.** Russia: Eastern Siberia (Buryatia), Far East (Amur Prov.). – Mongolia, China (Liaoning, Neimenggu, Gansu).
- Scolia (Scolia) q. quadricincta* (Scopoli, 1787)** [Sphex] (*Scolia dejeani* Vander Linden, 1829; *S. flaviceps* Eversmann, 1846; *S. galbula* auct.). Russia: European part (Central, South, North Caucasus, Crimea). – Europe (Western, Southern, Eastern), Georgia, Azerbaijan, Kyrgyzstan, Kazakhstan, Western Mongolia.
- Scolia (Scolia) q. mangichlakensis* Radoszkowski, 1879** (*S. flaviceps flaviceps*: Steinberg, 1962; *S. flaviceps mangichlakensis*: Steinberg, 1962). Russia: European part (North Caucasus). – Caucasus, Cyprus, Turkey, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Southern Kazakhstan.
- Scolia (Scolia) sexmaculata* (O.F. Müller, 1766)** [Vespa] (*S. quadripunctata* Fabricius, 1775). Russia: European part (Central, East, South, North Caucasus, Crimea), Ural (Orenburg Prov.), Western Siberia (Tomsk Prov.), Eastern Siberia (Khakassia, Irkutsk Prov.). – Europe (Western, Southern, Eastern), North Africa, Caucasus, Abkhazia, Cyprus, Turkey, Syria, Lebanon, Israel, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan.

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REFERENCES

- Amolin, A.V. Fauna of Scoliidae (Hymenoptera) of Ukraine. *Materials of the XIV Congress of the Russian Entomological Society, August 27–September 1, 2012*. Saint Petersburg. 17.
- Anlaş, S. & Çevik, İ.E. 2004. Faunistic researches on the Scoliidae (Hymenoptera) species of Manisa province, Turkey. *Turkish Journal of Entomology*, 28(3): 221–228.
- Argaman, Q. 1996. Generic synopsis of Scoliidae (Hymenoptera, Scolioidea). *Annales Musei Historico-Naturalis Hungarici*, 88: 171–222.
- Bağrıaçık, N. 2016. The situation of the Scoliidae (Hymenoptera: Vespoidea) in the Çukurova Region. *Hacettepe Journal of Biology and Chemistry*, 44(2): 149–153.
- Bischoff, H. & Bradley, J.C. 1929. The Scoliidae described by Pallas (Hym.). *Deutsche Entomologische Zeitschrift*, 5: 301–302.
- Bradley, J.C. 1972. Scoliid types in the Museum für Naturkunde of the Humboldt-Universität zu Berlin. *Mitteilungen aus dem Zoologischen Museum in Berlin*, 48(1): 3–19.
- Burmeister, H. 1854. Bemerkungen über den allgemeinen Bau und die Geschlechtsunterschiede bei den Arten der Gattung *Scolia* Fabr. *Abhandlungen der Naturforschenden Gesellschaft zu Halle*, 1(4): 1–46.
- Elçin, G.B. 2012. Systematic, faunistic and ecological studies on Scoliidae (Hymenoptera: Vespoidea) species in Nigde. 21. *Ulusal Biyoloji Kongresi, 3–7 Eylül 2012*. İzmir, Türkiye. 984.

- Elçin, G.B. & Bağrıaçık, N. 2015. A study on Turkish Scoliidae (Hymenoptera). *Entomofauna. Zeitschrift für Entomologie*, 36(3): 49–52.
- Erichson, W.F. 1849 (Nov.). *Scolia garrula* Erichs. In Ménétériés, E.: Catalogue des insectes recueillis par feu M. Lehmann. *Mémoires de l'Académie Impériale des Sciences de Saint-Petersbourg*, (8)6: 304–305. Dating after Sherborn, 1926.
- Eversmann, E. 1846. Hymenopterorum Rossicorum species novae vel parum cognitae, descriptae et ex parte depictae. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 19: 436–443.
- Eversmann, E. 1849 (Dec.). Fauna Hymenopterologica Volgo-Uralensis. Fam. III. Sphegidae Latr. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 22(4): 359–436.
- Fallahzadeh, M. & Saghaei, N. 2010. A brief study on the Scoliidae in Iran (Insecta: Hymenoptera). *Munis Entomology & Zoology*, 5(2): 792–795.
- Fateryga, A.V. & Shorenko, K.I. 2012. Scoliid Wasps (Hymenoptera: Scoliidae) in the Fauna of the Crimea. *Ukrainska Entomofaunistyka*, 3(2): 11–20. [In Russian].
- Fateryga, A.V. & Shorenko, K.I. 2015. *Scolia fallax* Eversmann, 1849. In: Ivanov S.P. & Fateryga A.V. (Eds.). *Red book of the Republic of Crimea. Animals*. Simferopol: PP «Ariat» LLC: 206. [In Russian].
- Geptner, B.G. 1940. *Eduard Aleksandrovich Eversmann (Eduard Friedrich Eversmann) zoologist and traveller (1794–1860)*. Moscow, 79 p. [In Russian].
- Hamon, J. 1993. Observations sur *Scolia (Scolia) galbula* (Pallas, 1771), *Scolia (Scolia) fallax* Eversmann, 1849 et *Scolia (Discolia) hirta* (Schrank, 1781). *Nouvelle Revue d'Entomologie (Nouvelle série)*, 10(1): 87–96.
- International Commission on Zoological Nomenclature (ICZN). 1999. *International Code of Zoological Nomenclature. Fourth Edition*. London: ITZN, i–xxx + 1–306 p.
- Loktionov, V.M. & Lelej, A.S. 2017. An annotated catalogue of the spider wasps (Hymenoptera: Pompilidae) of Russia. *Zootaxa*, 4280(1): 1–95. DOI: <https://doi.org/10.11646/zootaxa.4280.1.1>
- Madl, M. 1997. Über Vespiden, Pompiliden, Scoliiden und Tiphiden der Türkei (Hymenoptera). *Linzer Biologische Beiträge*, 29(2): 823–827.
- Marakuev, V. 1877. *Peter Simon Pallas, his life, scientific works and travels*. Moscow, 214 p. [In Russian].
- Milko, D.A. & Kazenas, V.L. 2005. Materials on the fauna of mammoth wasps (Hymenoptera, Scoliidae) of Kazakhstan. *Tethys Entomological Research*, 11: 35–46. [In Russian].
- Morawitz, F. 1891. Ueber Astrachan'sche Fossorien. *Horae Societatis Entomologicae Rossicae*, 25: 175–233.
- Osten, T. 1994. Zweiter Beitrag zur Kenntnis der Scoliidenfauna von Zypern (Hymenoptera, Scoliidae). *Entomofauna. Zeitschrift für Entomologie*, 15(43): 501–508.
- Osten, T. 1999. Kritische Liste der palaearktischen Scoliiden (Hymenoptera, Scoliidae). *Entomofauna. Zeitschrift für Entomologie*, 20(27): 422–428.
- Osten, T. 2000. Die Scoliiden des Mittelmeer-Gebietes und angrenzender Regionen (Hymenoptera). Ein Bestimmungsschlüssel. *Linzer Biologische Beiträge*, 32(2): 537–593.
- Osten, T. 2002. Beitrag zur Kenntnis der Scoliidenfauna von Israel (Hymenoptera, Scoliidae). *Entomofauna. Zeitschrift für Entomologie*, 23(28): 337–352.
- Osten, T. 2005a. Checkliste der Dolchwespen der Welt (Insecta: Hymenoptera, Scoliidae). 62. *Bericht der Naturforschenden Gesellschaft Augsburg*, 220: 1–62.
- Osten, T. 2005b. Die Scoliiden-Fauna Mittelasiens (Hym., Scoliidae) (Kasakhstan, Turkmenistan, Uzbekistan, Tadschikistan, Kirgistan): Ein Bestimmungsschlüssel. *Linzer Biologische Beiträge*, 37(2): 1451–1479.

- Osten, T. & Arens, W. 2004. Beitrag zur Kenntnis der Scoliiden-Fauna Griechenlands (ohne Zypern) (Hymenoptera, Scoliidae). *Entomofauna. Zeitschrift für Entomologie*, 25(20): 305–320.
- Osten, T., Ebrahimi, E. & Chahartaghi, A.M. 2003. Die Scoliiden des Iran und angrenzender Regionen mit Anmerkungen zu ihrer Lebensweise (Hymenoptera: Scoliidae). *Entomofauna. Zeitschrift für Entomologie*, 24(26): 353–377.
- Osten, T., & Özbek, H. 1999. Beitrag zur Kenntnis der Scoliiden-Fauna der Türkei (ohne Zypern) mit Anmerkungen zur Systematik und Taxonomie (Hymenoptera, Scoliidae). *Entomofauna. Zeitschrift für Entomologie*, 20(28): 429–444.
- Özbek, H. & Anlaş, S. 2011. Distribution of Scoliidae (Hymenoptera: Aculeata) of Turkey with their zoogeographic characterization. *Turkish Journal of Entomology*, 35(4): 627–639.
- Pallas, P.S. 1771. *Reise durch verschiedene Provinzen des russischen Reichs. Erster Theil*. St. Petersburg. + 504 p.
- Sakenin, H., Samin, N. & Bağrıaçık, N. 2010. A contribution to the Aculeate Hymenoptera (Insecta) from Iran. *Efflatounia: Efflatoun's Journal of Entomology*, 10: 15–20.
- Samin, N. & Bağrıaçık, N. 2012. A contribution to the knowledge of Scoliidae (Hymenoptera) from Iran. *Entomofauna. Zeitschrift für Entomologie*, 33(27): 389–396.
- Samin, N., Bağrıaçık, N. & Gadallah, N.S. 2014. A checklist of Iranian Scoliidae (Hymenoptera: Vespoidea). *Munis Entomology & Zoology*, 9(2): 713–723.
- Steinberg, D.M. 1962. *Fam. Scoliidae*. Leningrad: Nauka, 189 p. [Fauna of the USSR. N. S., 84, Hymenoptera, 13.] [In Russian].
- Tezcan, S., Karsavuran, Y., Pehlivan, E. & Anlaş, S. 2004. Contribution to the knowledge of Scoliidae (Hymenoptera) fauna of Turkey. *Turkish Journal of Entomology*, 28(4): 247–252.
- Tüzün, A. 2004. Studies on Scoliidae (Insecta: Hymenoptera) fauna of Ankara province. *Fırat Üniversitesi Fen ve Mühendislik Bilimleri Dergisi*, 16(1): 25–29.